

## REMARKS

Claims 1, 3-4, 6-25, and 27-44 are pending in the present application. Claims 1, 3-4, 6-25, and 27-44 stand rejected under 35 U.S.C. § 102(e), or, in the alternative, under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent Publication No. 2003/0168642 to Shannon, hereafter "Shannon", and under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 6,673,761 to Mitra et al., hereafter "Mitra".

Applicants respectfully traverse these rejections, and respectfully request reconsideration and allowance of the claims in view of the following remarks.

Claims 1, 3-4, 6-25, and 27-44 stand rejected under 35 U.S.C. § 102(e), as allegedly anticipated by Shannon. Applicants respectfully traverse this rejection.

To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barent, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1007 (1988). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

Applicants respectfully submit that Shannon does not meet the above standard for anticipation.

Independent claims 1 and 23 recite a brake dust barrier composition comprising about 0.1 wt.% to about 5 wt.% of a film forming compound selected from the group consisting of sulfonated polystyrenes, sulfonated styrene/maleic anhydride copolymers, linear silicone/ethylene oxide copolymers, silicone/acrylate copolymers, and mixtures thereof. Independent claim 36 recites a brake dust barrier composition present in an amount ranging between about 0.1 wt.% and about 5 wt.% of the cleaning formulation and comprising a sulfonated styrene/maleic anhydride copolymer.

With respect to independent claims 1 and 23, the Examiner is of the opinion that "Shannon clearly discloses that their composition contains anionic silicone carboxylates

(see paragraph 22), which meets the silicone/acrylate copolymer requirement of the instant invention." (3/21/2008 Office Action, page 5, final paragraph.)

Applicants respectfully disagree, and respectfully submit that the Examiner does not provide any support as to why Shannon's anionic silicone carboxylates are equivalent to Applicants' silicone/acrylate copolymers. Applicants respectfully submit that silicone carboxylates and silicone/acrylate copolymers are two distinct classes of polymeric materials and are recognized in the art to have distinct composition and properties. An anionic silicone carboxylate is a silicone polymer having terminal and/or pendant carboxylate groups and/or carboxylic acid groups that can be ionized. Indeed, a clear distinction is made in the art between acrylic polymeric materials and polymeric materials containing carboxylates. Shannon uses the term "acrylate" repeatedly in reference to acrylic materials. See, for example, Shannon, final line of paragraphs [0021] and [0022], and third line of paragraph [0023]. Thus, it is further affirmed that Shannon recognizes the difference between acrylic materials and materials containing carboxylate groups.

Therefore, Applicants respectfully assert that Shannon does not teach Applicants' silicone/acrylate copolymers, and that Shannon's anionic silicone carboxylates cannot be construed as equivalent to Applicants' silicone/acrylate copolymers. Such construction is unsupported by Shannon, by technical evidence, or by knowledge in the art. Withdrawal of this rejection is respectfully requested.

With respect to independent claim 36, the claim recites that the brake dust barrier composition comprises a sulfonated styrene/maleic anhydride copolymer only, and does not recite a silicone/acrylate copolymer. Since Shannon does not disclose a sulfonated styrene/maleic anhydride copolymer, the basis of rejection over Shannon is moot. Withdrawal of this rejection is respectfully requested.

Claims 1, 3-4, 6-25, and 27-44 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Shannon. Applicants respectfully traverse this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, or knowledge generally available in the art at the time of the invention, must provide some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q. 2d 1596, 1598 (Fed. Cir. 1998).

As discussed above, Shannon does not teach all the elements of independent claims 1, 23, and 36. In addition, Applicants respectfully submit that Shannon does not suggest all the elements of independent claims 1, 23, and 36, and does not provide any motivation to one with ordinary skill in the art to modify Shannon to do as Applicants' have done.

With respect to claims 1 and 23, the Examiner has asserted that Shannon's anionic silicone carboxylates are equivalent to Applicants' silicone/acrylate copolymers. However, as discussed above, there's a clear distinction in the art between anionic silicone carboxylates and silicone/acrylate copolymers. The Examiner does not provide any basis as to why Shannon's anionic silicone carboxylates would suggest to one with ordinary skill in the art to use silicone/acrylate copolymers. In this regard, the courts have held that to find obviousness, the Examiner must "identify a reason that would have prompted a person of ordinary skill in the art in the relevant field to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). No such reason is provided by the Examiner.

With respect to independent claim 36, the claim recites that the brake dust barrier composition comprises a sulfonated styrene/maleic anhydride copolymer only, and does not recite a silicone/acrylate copolymer. Shannon does not teach or suggest a sulfonated styrene/maleic anhydride copolymer, nor does it provide any motivation to one with ordinary skill in the art to use the same.

For at least the above reasons, Applicants respectfully assert that the present claims are patentable over Shannon under 35 U.S.C. § 103(a). Withdrawal of this rejection is respectfully requested.

Claims 1, 3-4, 6-25, and 27-44 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Mitra. Applicants respectfully traverse this rejection.

Independent claims 1 and 23 recite a brake dust barrier composition comprising about 0.1 wt.% to about 5 wt.% of a film forming compound selected from the group consisting of sulfonated polystyrenes, sulfonated styrene/maleic anhydride copolymers, linear silicone/ethylene oxide copolymers, silicone/acrylate copolymers, and mixtures thereof. Independent claim 36 recites a brake dust barrier composition present in an amount ranging between about 0.1 wt.% and about 5 wt.% of the cleaning formulation and comprising a sulfonated styrene/maleic anhydride copolymer.

Applicants respectfully assert that Mitra does not teach or suggest about 0.1 wt.% to about 5 wt.% of a film forming compound selected from the group consisting of sulfonated polystyrenes, sulfonated styrene/maleic anhydride copolymers, linear silicone/ethylene oxide copolymers, silicone/acrylate copolymers, and mixtures thereof as recited by independent claims 1 and 23. In addition, Applicants respectfully submit that Mitra does not teach or suggest a brake dust barrier composition present in an amount ranging between about 0.1 wt.% and about 5 wt.% of the cleaning formulation and comprising a sulfonated styrene/maleic anhydride copolymer as recited by independent claim 36. In addition, Applicants respectfully assert that Mitra does not provide any motivation to one with ordinary skill in the art to combine the foregoing polymeric materials in the foregoing amounts. For at least these reasons, Applicants respectfully assert that the present claims are patentable over Mitra. Withdrawal of this rejection is respectfully requested.

However, the Examiner asserts that “the adjunct ingredients, such as polymers, taught by Mitra et al would meet the 0.1-5% by weight limitation recited in the instant claims, since it is known in the art that adjunct ingredients, such as polymers, are present in this amount. Also, one of ordinary skill in the art would be able to determine that this

amount of a polymer would be used in the compositions disclosed in Mitra et al with routine experimentation." (3/21/2008 Office Action, page 5, first paragraph).

In support, the Examiner refers to Example 6 of Mitra stating that it "contains 90% by weight of water and 4.18-8.05% by weight of the ingredients BARQUAT 4250Z, potassium citrate, EDTA, isopropanol, amine oxide and fragrances. Therefore, these components contribute 94.18-98.05% by weight of the composition, which would leave 1.95-5.82% by weight of adjunct ingredients, such as polymers." (*Id.*)

Applicants respectfully disagree. As discussed above, it is respectfully submitted that Mitra does not provide any motivation to use Applicants' claimed polymeric materials in the claimed amounts.

As a preliminary matter, Applicants respectfully submit that out of about 130 examples of possible compounds to be used as adjuncts, Mitra only discloses polystyrenesulfonates which read on the present independent claims 1 and 23. (Mitra, column 12, line 29, to column 14, line 15). Mitra does not disclose or suggest Applicants' sulfonated styrene/maleic anhydride copolymer as recited by independent claim 36.

According to the Examiner, Example 6 in Mitra has a balance of 1.95-5.82% by weight, which would be the weight of the adjunct materials. According to this reasoning, however, Example 6 in Mitra would suggest that the adjunct materials are present in an amount of 5.63 to 13.07% by weight, which is clearly outside the range claimed by Applicants, and clearly affirming that it is not generally known in the art that adjunct materials are present in Applicants' claimed amount as alleged by the Examiner.

Mitra discloses adjuncts such as buffering and pH adjusting agents, fragrances or perfumes, waxes, dyes and/or colorants, solubilizing materials, stabilizers, thickeners, defoamers, hydrotropes, lotions and/or mineral oils, enzymes, bleaching agents, cloud point modifiers, preservatives, and/or polymers. (Mitra, column 12, lines 22-29.)

Example 6 in Mitra discloses 3.5-5% of Isopropanol. Mitra clearly discloses isopropanol (IPA) as a preservative, and preservatives as adjuncts. (Mitra, column 12, line 29, and column 13, line 2.)

Example 6 in Mitra discloses 0.09-1.1% potassium citrate and 0.09-0.15% of disodium EDTA. The foregoing clearly meet Mitra's definition of solubilizing materials and acids, also disclosed as adjuncts. Mitra discloses that solubilizing materials, when used, include, but are not limited to, hydrotropes (e.g. water soluble salts of low molecular weight organic acids such as the sodium and/or potassium salts of xylene sulfonic acid). In another embodiment, the acids, when used, include but are not limited to, organic hydroxy acids, citric acids, keto acid, and the like. (Mitra, column 12, lines 26 and 42-49, emphasis added.)

Example 6 in Mitra further discloses fragrance in the amount of 0-1%. Fragrances are clearly disclosed by Mitra as adjuncts. (Mitra, column 12, line 25.)

The above adjuncts disclosed in Mitra's Example 6, in combination with the 1.95-5.82% adjuncts discussed by the Examiner, result in Mitra's Example 6 disclosing 5.63 to 13.07% of adjuncts.

Therefore, Applicants respectfully assert that, contrary to the Examiner's assertion that adjuncts are known to generally be present in 0.1-5%, Mitra's Example 6 discloses adjuncts in a total amount of 5.63 to 13.07% by weight, which is well outside the range of Applicants' 0.1-5% of polymeric materials.

In addition, Applicants respectfully submit that none of the adjuncts disclosed in Mitra's examples, including example 6, are polymers, or, more specifically, film forming compounds selected from the group consisting of sulfonated polystyrenes, sulfonated styrene/maleic anhydride copolymers, linear silicone/ethylene oxide copolymers, silicone/acrylate copolymers, and mixtures thereof, as recited by Applicants' independent claims 1 and 23. Therefore there is no teaching, suggestion, or motivation in Mitra that would direct one with ordinary skill in the art to choose polystyrenesulfonates from a list

of over 130 adjuncts, and further to use the same in an amount of 0.1-5% according to Applicants' claimed amounts.

In addition, Applicants respectfully assert that the embodiment referred to by the Examiner in Example 6 in Mitra discloses the surfactant (Lauryl Dimethyl Amine Oxide) to be present in 0.2-0.4% by weight, which is well outside the range of Applicants' claimed surfactant in an amount ranging between about 1 wt.% and about 10 wt.% of the cleaning formulation.

In view of the above, Applicants respectfully assert that the present claims are patentable over Mitra, at least because Mitra does not teach or suggest a film forming compound in an amount ranging between about 0.1 wt.% and about 5 wt.% of the cleaning formulation selected from the group consisting of sulfonated polystyrenes, sulfonated styrene/maleic anhydride copolymers, linear silicone/ethylene oxide copolymers, silicone/acrylate copolymers, and mixtures thereof as recited by independent claims 1 and 23. The Examiner has not provided any reason why one with ordinary skill in the art would choose polystyrenesulfonates from among about 130 compounds, and in 0.1 to 5 wt%, especially since Mitra does not teach such amount, and does not provide any direction to one with ordinary skill in the art to choose polystyrenesulfonates in such amount.

In addition, with respect to independent claim 36 which recites a sulfonated styrene/maleic anhydride copolymer, not taught or suggested by Mitra, the Examiner has not provided any reason one with ordinary skill in the art would modify Mitra to use a sulfonated styrene/maleic anhydride copolymer in an amount of 0.1 to 5 wt%. Withdrawal of this rejection is respectfully requested.

It is believed that the foregoing remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' attorneys.

Respectfully submitted,

By: /Christopher C Boehm/  
Christopher C. Boehm  
Registration No. 41,624

Date: June 23, 2008  
Telephone: (248) 524-2300